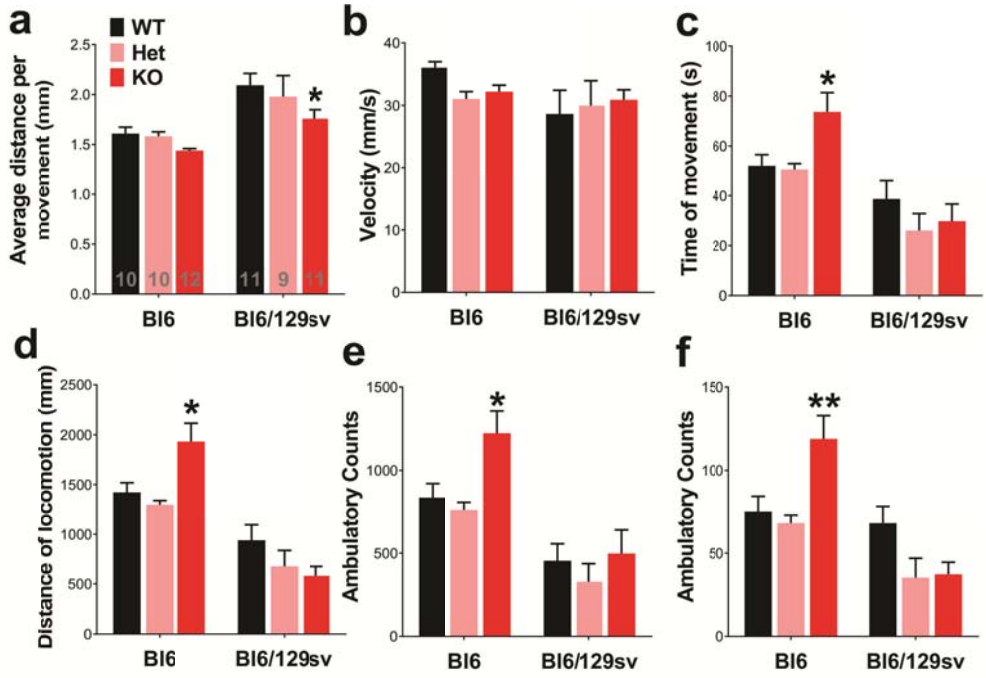

Figure S4. Analysis of movement during first 10mins in Open field. **a)** Average distance per movement. Two-way ANOVA: genotype ($p = 0.0155$) and genetic background ($p < 0.0001$) effects but no interaction ($p = 0.636$). **b)** Velocity. Two-way ANOVA: no genetic background ($p = 0.09$), or genotype effects ($p = 0.749$), or interaction ($p = 0.318$). **c)** Time of movement. Two-way ANOVA: genetic background ($p < 0.0001$) effects, but no genotype effect ($p = 0.1375$) or interaction ($p = 0.054$). **d)** Distance of locomotion. Two-way ANOVA: genetic background effect ($p < 0.0001$) and interaction ($p = 0.005$), but no genotype effect ($p = 0.1707$). **e)** Ambulatory counts of movement in the central field. Two-way ANOVA: genotype ($p < 0.022$) and genetic background ($p < 0.0001$) effects, but no interaction ($p = 0.244$). **f)** Ambulatory counts of movement in the peripheral field. Two-way ANOVA: genotype ($p = 0.035$) and genetic background ($p < 0.0001$) effects, plus interaction ($p = 0.002$). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, versus age-matched wild type mice (Bonferroni post hoc test). n as indicated. Data are means ± SEM.